

Please type in this box → ☐Approved for use through 10/31/99. OMB 0651-0031  
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

**INFORMATION DISCLOSURE STATEMENT BY APPLICANT**  
(use as many sheets as necessary)

**Substitute for form 151A/PTO**

**OFFICE**  
FEB 11 2002

**COMPLETE IF KNOWN**

Application Number	09/875,365
Confirmation Number	8844
Filing Date	06/05/2001
First Named Inventor	Daniel J. Woodruff et al.
Group Art Unit	1741
Examiner Name	

Sheet

1

of

1

Attorney Docket No. 29195.8156US

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIALS	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		NUMBER	Kind Code (if known)			
W		1,526,644		Pinney	02/17/1925	
W		1,881,713		Laukel	10/11/1932	
W		4,046,105		Gomez	09/06/1977	
W		4,304,641		Grandia et al.	12/08/1981	
W		4,634,503		Nogavich	01/06/1987	
W		4,828,654		Reed	05/09/1989	
W		5,000,827		Schuster et al.	03/19/1991	
W		5,156,730		Bhatt et al.	10/20/1992	
W		5,217,586		Datta et al.	06/08/1993	
W		2,256,274		Poris	10/26/1993	
W		5,344,491		Katou	09/06/1994	
W		5,376,176		Kuriyama	12/27/1994	
W		5,681,392		Swain	10/28/1997	
W		6,090,260		Inoue et al.	07/18/2000	
W		6,179,983		Reid et al.	01/30/2001	

**RECEIVED**  
FEB 14 2002  
TC 1700

**FOREIGN PATENT DOCUMENTS**

*EXAMINER INITIALS	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
		Office	Number	Kind Code (if known)				
W		PCT	WO 00/61498		Wilson et al.	10/19/2000		
W		PCT	WO 00/61837		Wilson et al.	10/19/2000		

**OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS**

*EXAMINER INITIALS	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume/issue number(s), publisher, city and/or country where published.	T

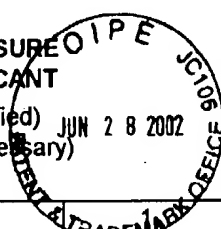
EXAMINER

William Leader

DATE CONSIDERED

6/15/2004

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> Form PTO-1449 (Modified) (Use several sheets if necessary)			<b>COMPLETE IF KNOWN</b>	
			Application Number	09/875,365
			Confirmation Number	8844
			Filing Date	June 5, 2001
			First Named Inventor	Daniel J. Woodruff
			Group Art Unit	1741
			Examiner Name	Unknown
			Attorney Docket No.	291958156US
Sheet	1	of		

U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No.	U.S. Patent or Application		Name of Patentee or Inventor of Cited Document	Date of Publication or Filing Date of Cited Document	Pages, Columns, Lines, Where Relevant Figures Appear
		NUMBER	Kind Code (if known)			
WL		5,368,711		Poris	11/29/94	
WL		5,723,028		Poris	03/03/98	
WL		6,027,631		Broadbent	02/22/00	
WL		6,074,544		Reid et al.	06/13/00	
WL		6,110,346		Reid et al.	08/29/00	
WL		6,156,167		Patton et al.	12/05/00	
WL		6,159,354		Contolini et al.	12/12/00	
WL		6,162,344		Reid et al.	12/19/00	
WL		6,193,859		Contolini	02/27/01	
WL		6,228,232		Woodruff et al.	05/08/01	

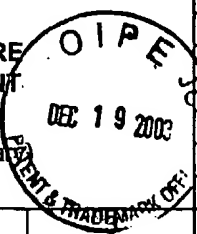
FOREIGN PATENT DOCUMENTS								
Examiner Initial	Cite No.	Foreign Patent or Application			Name of Patentee or Applicant of Cited Document	Date of Publication or Filing Date of Cited Document	Pages, Columns, Lines, Where Relevant Figures Appear	T
		Office	NUMBER	Kind Code (if known)				

OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume issue number(s), publisher, city and/or country where published.	T
WL		LEE, TIEN-YU TOM, "Application of a CFD Tool in Designing a Fountain Plating Cell for Uniform Bump Plating of Semiconductor Wafers," IEE Transactions on Components, Packaging, and Manufacturing Technology (February 1996), Vol. 19, No. 1, IEEE	

EXAMINER <i>William Leader</i>	DATE CONSIDERED <i>6/15/2004</i>
*EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application(s).	

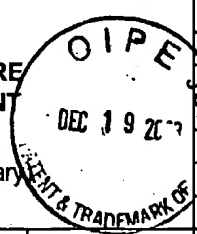
<p align="center"><b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b></p> <p align="center">Form PTO-1449 (Modified 3/98) (Use several sheets if necessary)</p>			<b>COMPLETE IF KNOWN</b>		
			Application Number	09/875,365	
			Confirmation Number	8844	
			Filing Date	June 5, 2001	
			First Named Inventor	Daniel J. Woodruff	
			Group Art Unit	1742	
Examiner Name	William T. Leader				
Attorney Docket No.	291958156US				
Sheet	1	of	3		

U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No.	U.S. Patent or Application		Name of Patentee or Inventor of Cited Document	Date of Publication or Filing Date of Cited Document	Pages, Columns, Lines, Where Relevant Figures Appear
		NUMBER	Kind Code (if known)			
WL		*US2001/0043856		Woodruff et al.	11/22/01	
WL		*US2001/0024611		Woodruff et al.	09/27/01	
WL		*US2002/0032499		Wilson et al.	03/14/02	
WL		*US2002/0139678		Wilson et al.	10/03/02	
WL		*US2002/0125141		Wilson et al.	09/12/02	
WL		*US2003/0127337		Hanson et al.	07/10/03	
WL		US2002/0008037		Wilson et al.	01/24/02	
WL		3,664,933		Clauss	05/23/72	
WL		3,706,635		Kowalski	12/19/72	
WL		3,716,462		Jensen	02/13/73	
WL		3,878,066		Dettke et al.	04/15/75	
WL		3,930,963		Polichette et al.	01/06/76	
WL		4,000,046		Weaver	12/28/76	
WL		4,134,802		Herr	01/16/79	
WL		4,384,930		Eckles	05/24/83	
WL		4,437,943		Beck et al.	03/20/84	
WL		4,500,394		Rizzo	02/19/85	
WL		4,576,689		Makkaev et al.	03/18/86	
WL		4,648,944		George et al.	03/10/87	
WL		4,781,800		Goldman et al.	11/01/88	
WL		4,902,398		Homstad	02/20/90	
WL		4,949,671		Davis et al.	08/21/90	
WL		4,959,278		Shimauchi et al.	09/25/90	
WL		4,988,533		Freeman et al.	01/29/91	
WL		5,096,550		Mayer et al.	03/17/92	
WL		5,115,430		Hahne et al.	05/19/92	
EXAMINER <i>William Leader</i>				DATE CONSIDERED <i>6/15/2004</i>		
<p>*EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application(s).</p>						

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> Form PTO-1449 (Modified) (Use several sheets if necessary)			<b>COMPLETE IF KNOWN</b>	
			Application Number	09/875,365
			Confirmation Number	8844
			Filing Date	June 5, 2001
			First Named Inventor	Daniel J. Woodruff
			Group Art Unit	1742
			Examiner Name	William T. Leader
			Attorney Docket No.	291958156US
Sheet	2	of		

U.S. PATENT DOCUMENTS					
		U.S. Patent or Application			
WL		5,135,636	Yee et al.	08/04/92	
WL		5,138,973	Davis et al.	08/18/92	
WL		5,151,168	Gilton et al.	09/29/92	
WL		5,209,817	Ahmad et al.	05/11/93	
WL		5,302,464	Nomura et al.	04/12/94	
WL		5,372,848	Blackwell et al.	12/13/94	
WL		5,391,285	Lytle et al.	02/21/95	
WL		5,472,502	Batchelder	12/05/95	
WL		5,549,808	Farooq et al.	08/27/96	
WL		5,597,460	Reynolds	01/28/97	
WL		5,684,713	Asada et al.	11/04/97	
WL		5,639,316	Cabral, Jr. et al.	06/17/97	
WL		5,754,842	Minagawa	05/19/98	
WL		5,871,626	Crafts et al.	02/16/99	
WL		5,882,498	Dubin et al.	03/16/99	
WL		5,908,543	Matsunami et al.	06/01/99	
WL		5,932,077	Reynolds	08/03/99	
WL		5,989,397	Laube et al.	11/23/99	
WL		5,989,406	Beetz, Jr. et al.	11/23/99	
WL		5,999,886	Martin et al.	12/07/99	
WL		6,028,986	Song	02/22/00	
WL		6,151,532	Barone et al.	11/21/00	
WL		6,162,344	Reid et al.	12/19/00	
WL		6,199,301	Wallace	03/13/01	
WL		6,277,263	Chen	08/21/01	
WL		6,391,166	Wang	05/21/02	
WL		6,497,801	Woodruff et al.	12/24/02	

EXAMINER <i>William Leader</i>	DATE CONSIDERED <i>6/15/2004</i>
*EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application(s).	

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> Form PTO-1449 (Modified) (Use several sheets if necessary)				<b>COMPLETE IF KNOWN</b>	
				Application Number	09/875,365
				Confirmation Number	8844
				Filing Date	June 5, 2001
				First Named Inventor	Daniel J. Woodruff
				Group Art Unit	1742
				Examiner Name	William T. Leader
Sheet	3	of	3	Attorney Docket No.	291958156US

U.S. PATENT DOCUMENTS					
		U.S. Patent or Application			
PL		*6,623,609		Harris et al.	09/23/03
ML		*6,632,334		Anderson et al.	10/14/03

FOREIGN PATENT DOCUMENTS								
Examiner Initial	Cite No.	Foreign Patent or Application			Name of Patentee or Applicant of Cited Document	Date of Publication or Filing Date of Cited Document	Pages, Columns, Lines, Where Relevant Figures Appear	T
		Office	NUMBER	Kind Code (if known)				
WJ		PCT	WO 02/045476		Semitool, Inc.	06/13/02		
WJ		PCT	*WO 02/97165		Semitool, Inc.	12/05/02		
WJ		PCT	*WO 02/99165		Semitool, Inc.	12/12/02		
WJ		PCT	*WO 01/90434		Semitool, Inc.	11/29/01		
WJ		PCT	*WO 01/91163		Semitool, Inc.	11/29/01		

OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume issue number(s), publisher, city and/or country where published.	T
WL		RITTER et al., "Two- Three-Dimensional Numerical Modeling of Copper Electroplating For Advanced ULSI Metallization", E-MRS Conference Symposium M. Basic Models to Enhance Reliability, Strasbourg (FRANCE) 1999	

<b>EXAMINER</b> William Leader	<b>DATE CONSIDERED</b> 6/15/2004
<b>*EXAMINER:</b> Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application(s).	